

**I. AMENDMENTS TO THE CLAIMS:**

Please amend claims 14, 18, 19, 22, 34 and 35, and add new claims 38-43, as follows.

No new matter has been added to the claims.

The following listing of claims replaces all prior listings, or versions, of claims in the above-captioned application.

**LISTING OF CLAIMS:**

Claims 1-13 are cancelled.

14. (Currently Amended) A master alloy for obtainingcasting a copper alloy cast,  
consisting of:

(a) Cu: 40 to 80 wt.%;

(b) Zr: 0.5 to 35 wt.%;

(c) at least one element selected from the group consisting of Mg: 0.01 to 1 wt.%, Sn:  
0.1 to 5 wt.%, B: 0.01 to 0.5 wt.%, Mn: 0.01 to 5 wt.% and Si: 0.01 to 1 wt.%; and

(d) the balance of Zn.

15-17. (Cancelled)

18. (Currently Amended) The master alloy for obtainingcasting a copper alloy cast  
according to claim 14,

wherein said master alloy is an ingot formed in a shape of a boat, continuous casting  
material formed in a shape of a rod or wire, or hot extrusion material formed in a shape of a  
rod or wire.

19. (Currently Amended) A master alloy for obtaining~~casting~~ a copper alloy cast,  
consisting of:

- (a) Cu: 40 to 80 wt.%;
- (b) Zr: 0.5 to 35 wt.%;
- (c) P: 0.01 to 3 wt.%;
- (d) at least one element selected from the group consisting of Mg: 0.01 to 1 wt.%, Sn:  
0.1 to 5 wt.%, B: 0.01 to 0.5 wt.%, Mn: 0.01 to 5 wt.% and Si: 0.01 to 1 wt.%; and
- (e) the balance of Zn.

20-21. (Cancelled)

22. (Currently Amended) The master alloy for obtaining~~casting~~ a copper alloy cast  
according to claim 19,

wherein said master alloy is an ingot formed in a shape of a boat, continuous casting  
material formed in a shape of a rod or wire, or hot extrusion material formed in a shape of a  
rod or wire.

23-33. (Cancelled)

34. (Currently Amended) The master alloy for obtaining~~casting~~ a copper alloy cast  
according to claim 14, wherein when the master alloy is cast, the resulting copper alloy cast  
includes refined grains having~~the master alloy has a grain size of 50μm or less, after casting~~.

35. (Currently Amended) The master alloy for casting a copper alloy according to  
claim 19, wherein when the master alloy is cast, the resulting copper alloy cast includes

refined grains having the master alloy has a grain size of 50 $\mu$ m or less, after casting.

36. (Previously Presented) A master alloy for casting a copper alloy, consisting of:

Cu: 40 to 80 wt.%;

Zr: 0.5 to 35 wt.%;

at least one element selected from the group consisting of Mg: 0.01 to 1 wt.%, Sn: 0.1 to 5 wt.%, B: 0.01 to 0.5 wt.%, Mn: 0.01 to 5 wt.% and Si: 0.01 to 1 wt.%; and

the balance of Zn,

wherein said Cu occupies 50 to 65 wt.%, and said Zr occupies 1 to 10 wt.%.

37. (Previously Presented) A master alloy for casting a copper alloy, consisting of:

Cu: 40 to 80 wt.%;

Zr: 0.5 to 35 wt.%;

P: 0.01 to 3 wt.%;

at least one element selected from the group consisting of Mg: 0.01 to 1 wt.%, Sn: 0.1 to 5 wt.%, B: 0.01 to 0.5 wt.%, Mn: 0.01 to 5 wt.% and Si: 0.01 to 1 wt.%; and

the balance of Zn,

wherein said Cu occupies 50 to 65 wt.%, and said Zr occupies 1 to 10 wt.%.

38. (NEW) The master alloy for obtaining a copper alloy cast according to claim 34,

wherein 0.2% proof strength of the resulting copper alloy cast is improved by 10% or more, comparing to a copper alloy cast obtained without grain refinement.

39. (NEW) The master alloy for obtaining a copper alloy cast according to claim 35,

wherein 0.2% proof strength of the resulting copper alloy cast is improved by 10% or more,

comparing to a copper alloy cast obtained without grain refinement.

40. (NEW) A copper alloy cast obtained by using the master alloy according to claim 14, wherein the copper alloy cast includes refined grains having a grain size of 50 $\mu\text{m}$  or less.

41. (NEW) A copper alloy cast obtained by using the master alloy according to claim 19, wherein the copper alloy cast includes refined grains having a grain size of 50 $\mu\text{m}$  or less.

42. (NEW) The copper alloy cast according to claim 40, wherein 0.2% proof strength of the copper alloy cast is improved by 10% or more, comparing to a copper alloy cast obtained without grain refinement.

43. (NEW) The copper alloy cast according to claim 41, wherein 0.2% proof strength of the copper alloy cast is improved by 10% or more, comparing to a copper alloy cast obtained without grain refinement.